

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007237**Date Inspected:** 28-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Li Jia, Mr. Yu Dong Ping, Mr. Wen Zhong Wan

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

**Tower Bay 10**

The QA Inspector observed ZPMC welder Ms. Xu Yan, stencil 052917 using submerged arc welding procedure specification WPS-B-T-2221-B-U3C-S2 to make groove weld SSDI-FESA4-1A/C-16A. The QA Inspector observed Quality Control personnel monitoring the base material temperature. This QA Inspector measured a welding current of 680 amps and 30.0 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

The QA Inspector observed ZPMC welder Ms. Yu Yunxia, stencil 209106 using submerged arc welding procedure specification WPS-B-T-2221-B-U3C-S2 to make groove weld SSDI-FESA4-1A/C-16A. The QA Inspector observed Quality Control personnel monitoring the base material temperature. This QA Inspector measured a welding current of 680 amps and 31.8 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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### Tower Bay 11

This QA Inspector observed ZPMC welder Ms. Wu Aixiang, stencil 040772 is using welding procedure specification WPS-B-T-2221-B-U3C-2-S to make submerged arc groove weld ESD1-FESA4-2A/F-11A. The QA Inspector observed ZPMC Quality Control personnel monitoring this welding and this QA Inspector measured a welding current of approximately 640 amps and 32 volts and a travel speed of 520 mm per minute. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

### OBG Assembly

The QA Inspector observed ZPMC welder Mr. Wang Yuan, stencil 215250 is using welding procedure specification WPS-B-T-2331-TC-P4-F to make traveler rail attachment assembly flux cored groove weld TR1A-025-002. The QA Inspector observed ZPMC Quality Control personnel had monitoring this welding and the QA Inspector measured a welding current of approximately 300 amps and 30.0 volts. The QA Inspector observed the groove weld where Mr. Wang Yuan was preparing to deposit weld material had paint on some of the surfaces. The QA Inspector informed ZPMC CWI Mr. Li Jia that all surfaces that are to be welded are required to be free of paint and Mr. Li Jia said he will have the paint removed prior to welding. See the photographs below for additional information. Items observed on this date appeared to generally comply with applicable contract documents.

The QA Inspector observed ZPMC welder Mr. Fan Xiau Liang, stencil 250534 is using welding procedure specification WPS-B-T-2331-TC-P4-F to make traveler rail attachment assembly flux cored groove weld TR2A-028-002. The QA Inspector observed ZPMC Quality Control personnel had monitoring this welding and the QA Inspector measured a welding current of approximately 310 amps and 31.0 volts. Items observed on this date appeared to generally comply with applicable contract documents.

### OBG Bay 13 and OBG Bay 14

The QA Inspector observed no ZPMC personnel working in OBG Bay 13 or OBG Bay 14 this shift.



### Summary of Conversations:

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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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See above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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